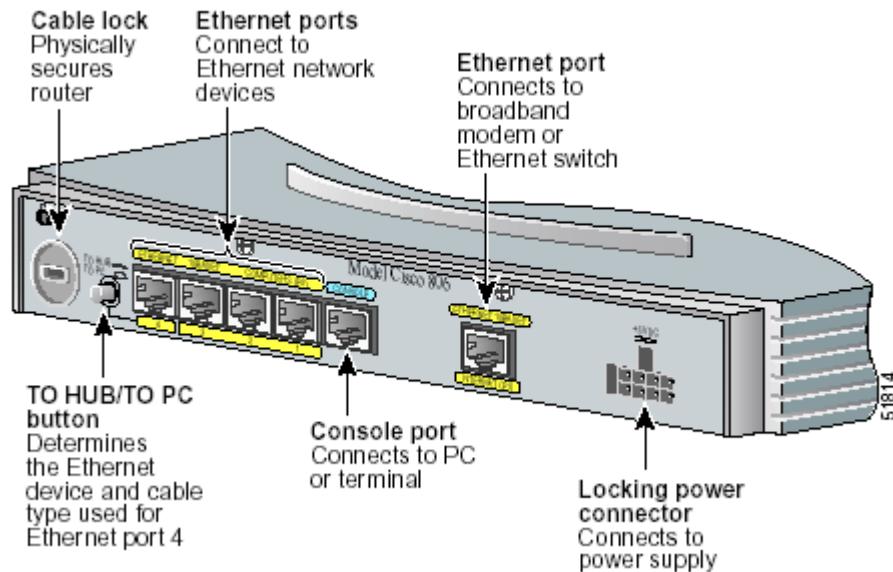


Lab 10.2.9 Small Router Purchase – Instructor Version



Objective

The purpose of this lab is to introduce the variety and prices of network components in the market. This lab will look specifically at small routers used by telecommuters when working from home. The lab will use the web site <http://www.cisco.com> but any local source, catalog, or website can be used.

Background / Preparation

Some company executives want more secure connections when working with cable and DSL connections from their homes. They have requested a proposal for purchasing small routers for this purpose. The assignment is to research at least two different solutions and develop a proposal. The project details are as follows:

- The company IT department is interested in reliability.
- There is concern about working with and supporting too many models of devices.
- The company uses Cisco routers throughout the corporate network.
- The company would like to be able to extend Cisco IOS features like Virtual Private Network (VPN) and firewall out to these remote users.

In talking to the executives and support personnel, it has become apparent that some of the personnel live in areas that do not support DSL or cable service. Models that might also support Integrated Services Digital Network (ISDN) connections must now also be looked into.

The requirements for the proposal include the following:

- 12 routers supporting DSL or cable connections
- 3 routers supporting ISDN connections
- All devices are to support the Cisco IOS features

Assume the service provider will supply any required modem device and that the router will connect to it via an Ethernet interface.

Several executives expressed an interest in being able to connect 2 or 3 computers to the same link. It is safe to assume this request will be made by most users.

Step 1 Research equipment pricing

Start by going to <http://www.cisco.com> and selecting **Products & Services** and following the links to **Routers** to gather basic information. Look specifically at the 700, 800, and small office, home office (SOHO) models.

Look at the Overview option, particularly any white papers, presentations, and brochures. These may provide useful data and graphics for the final presentation.

Use at least three other sources for technologies and pricing. If using Web searches, try <http://www.cdw.com>, <http://www.google.com>, or any other preferred search engine.

Step 2 Compile a one-page summary of your results

Use Microsoft Excel, Word, or any comparable products to compile a summary of the results. Include a short 8-15 line reason why this implementation was selected. Include a simple diagram showing the following:

- Router
- PCs
- Power cord
- Cable or DSL modem

Optional Step 2

Instead of creating the above Excel or Word documents, create a 4 to 8 slide PowerPoint presentation covering the same requirements.

Assume that the material will need to be presented.

If time allows, complete both step 2 and the optional presentation. This is a likely requirement for many jobs.

There is no one right answer to this project. Answers will vary greatly depending on the wide variety of sources available on the Internet.

The presentation should reflect choices of equipment whose specifications meet the requirements of the project. For example, the routers should probably possess a NAT capability to accommodate those users who want to attach more than one device to the same link, which usually means that only one IP address is available to connect to the outside.